disease (for which latter opportunity he is indebted to Dr. Duffey), and in yellow vomit, he has uniformly obtained negative results. Bloody urine offers no difficulty, and the presence of albumen does not interfere with the test.

Briefly to sum up the results of Dr. Smith's observations, it would appear that the value and delicacy of the nitric acid test are less than is commonly supposed, although it is depended upon in delicate physiological investigations, and that it is desirable to have at command supplementary tests for biliary pigment which shall be easy of execution and free from fallacy.

Four test-liquids seem to answer to these indications—viz., tincture of iodine, ferric chloride, peroxide of hydrogen, and the acetic or phosphoric solution of peroxide of lead. The two latter liquids possess over the former the advantage of being themselves colourless, whereby any change of colour produced in testing is more readily appreciated; and the phospho-plumbic solution especially promises well as a delicate reagent.

Peroxide of lead has been utilized in experiments on bile (Maly), but peroxide of hydrogen, and ferric chloride have not, to my knowledge, been used by other experimenters, and I venture to hope that physiologists and clinical observers will test their limits of usefulness.[1]

With a fresh supply of material Dr. S. purposes to study more closely the action of the iron, lead, and hydrogen peroxide tests; but, as the clinical experiments have been chiefly conducted with the iodine test, he mentions, in conclusion, the reason which seems to recommend tincture of iodine to the notice of those interested in such matters.

1. A single reagent, always easy to obtain, is alone necessary.
2. The test-liquid is not corrosive.
3. A single definite colour is produced with the bile pigment.
4. The colour is sufficiently persistent.
5. From the less powerful chemical energy of the reagent, as compared with that of nitric acid, there is a diminished liability to error.
6. No other pigment than bile will yield the characteristic green colour. And lastly,
7. The test fully equals in delicacy, possibly surpasses, the nitric acid test.[2]

18. *Cystic Hæmatoma of the Spleen.*—Dr. PAUL SPILLMAN describes (*Archives de Physiologie*, Aug.) a case in which he found this form of tumour in the spleen; he can find no record of a similar tumour occurring in this organ. It was of the size of an infant's head, attached to the inside of the spleen near the hilus. The interior of the cyst was made up of a number of communicating anfractuosities filled with a yellowish fluid containing cholesterine. The following facts, taken from the detailed account, are dwelt upon as satisfactory evidence of the true character of the growth. 1. The cavity was lined with a single layer of cells like those which form the epithelial lining of the vessels. 2. In the general wall many points of calcareous deposit existed. 3. The inner surface was divided into numerous and intricate spaces. 4. The fluid contained numerous blood-corpuscles and crystals. 5. Neither inosite nor succinic acid, both of which constantly occur in hydatids, was found in the fluid. The cholesterine is probably the residue of absorbed blood.—*London Med. Record*, Jan. 15, 1877.

19. *The Effect of Pilocarpine (the Alkaloïd of Jaborandi) on two Cases of Unilateral Sweating.*—Dr. SYDNEY RINGER, Professor of Therapeutics at University College; and Mr. J. S. BURY, Physician's Assistant at University College Hospital, publish in the *Practitioner* (Dec. 1876) the report of an interesting clinical investigation into the effects of the alkaloid of jaborandi on two cases of unilateral sweating, of which the following is an abstract:—

A man and a woman, the subjects of unilateral sweating, were admitted into

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[1] An account of recent investigations on the bile pigments will be found in Watts' Dictionary of Chemistry. Second Supplement, 1875.

[2] It should be borne in mind that all the experiments refer to *human* bile pigment.

University College Hospital, and on testing upon them the effect of pilocarpine very curious and unexpected results were obtained. The first injection caused in both cases far more copious perspiration of the normal than of the perspiring side. The woman, on any exertion, perspired profusely over the whole left side. She was subjected to six experiments. On the first the perspiration was much more abundant over the right side; on the next three occasions she sweated most on the left side; on the fifth most on the right side; and on the last, most on the left.

The man, admitted whilst apoplectic, perspired profusely without intermission over the right half of the head and face, and very freely over the right half of the chest and the right arm. Five experiments were made on him. On the first occasion the pilocarpine caused free perspiration on both sides of the body, though far more profuse on the left than on the right side; on the four following occasions, the perspiration was equal on both side of the face, but far more abundant over the left half than over the right half of his bald head. It is curious that the right half of the moustache did not grow till after the use of pilocarpine.

These injections produced another strange and unexpected effect. The pilocarpine cured the woman, who had suffered for years from the unilateral sweating. The first injection much reduced the left-side perspiration, and the subsequent injections removed it altogether, and though she remained under observation for several weeks longer, the sweating did not recur. The effect of the drug on the man's perspiration was less marked, though the first injection very greatly lessened it, so that it only amounted to slight moisture, whilst previous to the use of pilocarpine the right side of the face and head was always covered with large beads of perspiration, which, running together, trickled night and day down his head and face, and most freely whilst he slept. After twelve days, however, in spite of repeated injections, the unilateral sweating returned, and thence-forward the pilocarpine utterly failed to control the sweating, for though it still induced copious perspiration, it did not, as formerly, afterwards lessen the abnormal amount of it. One-hundredth of a grain of atropia was then injected, which in ten minutes dried the sodden skin, and it remained dry, or only perspired very slightly on rare occasions, during the subsequent eleven days, when the observations were discontinued.

The woman had previously suffered from difficulty in holding her water, which the pilocarpine increased, so that for a short time she suffered from incontinence.

The mode of proceeding was as follows: The face was wiped quite dry and then the pilocarpine was given, and subsequently about every three minutes the face was wiped, and how soon the perspiration reappeared and in what amount was noted.

In the case of a woman, one-third grain of pilocarpine was injected under the skin of the left arm; it brought on flushing of both sides of the face, especially of the right side, which to the patient at first felt hotter, and very soon she felt hot all over.

Perspiration appeared in seventeen minutes, at first equal on both sides, but three minutes later it was much more abundant on the right side, the difference being most marked, for while the left side of the face, arm, leg, and foot were nearly dry, the corresponding parts of the right side were wet with perspiration. In twenty-five minutes the perspiration began to decline, though it was still far more abundant on the right side. At this time it was noted that soon after wiping the face the left side was cool and dry, while the right side was hot and moist. The following night the left-side perspiration was very slight, far less than on previous nights. On the following day, August 11th, the experiment was repeated, injecting the pilocarpine into the right arm. Both sides of the face became equally flushed, but to the patient the right felt the hotter. On this occasion the perspiration was much greater on the left side of the face, the hands being equally moist. The left side of the face felt to the hand much colder than the right. On the twelfth the experiment was repeated, injecting one-third grain of pilocarpine under the skin of the right arm. Both sides of the face became equally flushed, the sweating at first being much more marked on the left side of the face, the difference being most evident on the forehead. The hands were equally moist. Five minutes after, the perspiration became marked; we wiped the face, and after this, both sides of the face sweated equally.

On August 13th one-half grain of pilocarpine was injected under the skin of the left arm, noting previously that the left forehead was moist, the right dry. Both sides of the face became equally flushed. The left side of the body sweated much more than the right. One-hundredth grain of atropine was then injected under the skin of the right arm. In five minutes the left side still perspired freely; in fifteen minutes the sweating had entirely ceased.

On August 18th one-third grain of pilocarpine was injected into the right arm, and the right side of the face and the right arm perspired more than the corresponding parts of the left side.

On September 6th one-half of a grain of the alkaloid was injected into the left arm. She perspired on the left side, but, strange to say, this large dose caused no perspiration on the right side, and not excessive sweating on the left side. It lasted only thirteen minutes. As we have already stated, the pilocarpine quite cured this woman of unilateral sweating.

In order to ascertain if the unilateral sweating was due to some affection of the vaso-motor nerves inducing an increased supply of blood to the sweat-glands on the left half of the body, on four occasions nitrite of amyl was administered by inhalation in sufficient dose to flush the face strongly. On each occasion the face flushed equally on both sides, and in one instance only did the inhalation cause slight perspiration, and this was equal on both sides of the face; the left cheek, the left temple, the left half of forehead, felt during the flush much cooler than the opposite parts, whilst the patient averred that the left side felt to her hotter than the right.

20. *Pathology of Herpes Zoster.*—O. RIESEL (*Deutsche Med. Wochenschrift*, No. 23, 1876, and *Centralblatt für die Med. Wissenschaft*, No. 36) describes a case which, he thinks, tends to disprove Bärensprung's theory of the origin of herpes zoster from trophic nerve-disturbance. After extirpation of the left mamma in a somewhat anæmic woman aged 36, the left arm of the patient was laid upon a horsehair cushion in such a manner that pressure was made a finger-breadth above the inner condyle. The next day pain was experienced on the volar side of the forearm, and the day following a great number of infiltrations, which became transformed into the efflorescence of herpes a few days later. The further course of the disease was normal. Riesel refers to the fact that the injury affected almost exclusively the trunk of one of the principal nerves, just after its passage through the fascia into the subcutanous connective tissue, and that, as in Bohn's cases, a brief and trifling injury produced the eruption. The author shows analogies between this case and those of traumatic paralysis following pressure upon or bruising of motor nerves, particularly in the arm. In contusion of nerve-trunks, according to Erb, the inflammation excited in the neurilemma is transmitted along the course of the nerve, until it reaches its finest twigs and even the muscles. In a similar manner, Riesel assumes in the case of herpes zoster an inflammation carried from the seat of injury to that of the eruption in the line of the nerve.—*London Med. Record*, Feb. 15, 1877.

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21. *Acute Traumatic Tetanus treated successfully with Chloral injected hypodermically.*—Mr. J. H. SALTER records (*Practitioner*, Dec. 1876) the details of a case of acute traumatic tetanus, resulting in recovery under the treatment of repeated hypodermic injections of chloral, which he believes to be the first case treated successfully by this method.